SCORE Search Results Details for Application 10591347 and Search Result 20110118 143719 us-10-591-347-2 copy 1567 2124.rng.

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This page gives you Search Results detail for the Application 10591347 and Search Result 20110118 143719 us-10-591-347-2 copy 1567 2124.rng.

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GenCore version 6.3

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OM nucleic - nucleic search, using sw model

Run on:

January 18, 2011, 23:34:55; Search time 1207 Seconds

(without alignments)

9808.281 Million cell updates/sec

Title:

Searched:

US-10-591-347-2 COPY 1567 2124 Perfect score:

558

Sequence:

1 agagacaatgaattaaggga.....atttgaagcacctgaatagg 558

Scoring table: IDENTITY NUC

Gapop 10.0 , Gapext 1.0

18225500 segs, 10608060480 residues

Total number of hits satisfying chosen parameters: 36451000

Minimum DB seg length: 0

Maximum DB seg length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : N_Geneseg_201023:*

1: genesegn1:*

2: genesegn2:*

3 . geneseqn3:*

4 : genesegn4:* 5:

genesegn5:* 6: genesegn6:*

7: geneseqn7:* 8: geneseqn8:*
9: geneseqn9:*

SUMMARIES

		왕			SOMMANIES	
D 1 +-						
Result	0	Query		DD	TD	December 1
No.	Score	Match	Length	DB	ID	Description
1	558	100.0	3207	2	ADH68168	Adh68168 DNA encod
2	558	100.0	3207	4	AEF64785	Aef64785 Human pho
3	558	100.0	3207	4	AEK13515	Aek13515 Phosphati
4	558	100.0	3207	4	AEK13519	Aek13519 Phosphati
5	558	100.0	3207	7	ARL60529	Ar160529 Human pho
6	558	100.0	3412	1	AAQ51156	Aaq51156 Human p11
7	558	100.0	3412	4	AED31617	Aed31617 cDNA (SEQ
8	558	100.0	3423	3	ADU05935	Adu05935 Novel bro
9	558	100.0	3424	1	AAS14365	Aas14365 cDNA enco
10	558	100.0	3424	1	ABL59523	Ab159523 Human pho
11	558	100.0	3424	2	ADE85076	Ade85076 Farnesyl
12	558	100.0	3424	4	ADZ00490	Adz00490 p110-beta
13	558	100.0	3424	4	AEH10445	Aeh10445 PIK3CA cD
14	558	100.0	3424	4	AED31618	Aed31618 cDNA (SEQ
15	558	100.0	3424	4	AEG93388	Aeg93388 Human tum
16	558	100.0	3426	6	ARC02473	Arc02473 DNA fragm
17	558	100.0	3724	4	AEK54940	Aek54940 Human PIK
18	558	100.0	3724	5	AER29796	Aer29796 Breast ca
19	558	100.0	3724	7	ARV60468	Arv60468 Human PIK
20	558	100.0	3724	7	ARW65283	Arw65283 Human PIK
21	558	100.0	3724	7	ATM52123	Atm52123 Human PIK
22	558	100.0	3724	7	ATS16021	Ats16021 Human pho
23	558	100.0	3724	8	AWY98731	Awy98731 Human PIK
24	558	100.0	3724	8	AWY98891	Awy98891 Human PIK
25	558	100.0	3724	8	AWY98894	Awy98894 Human PIK
26	558	100.0	3724	9	AXU25358	Axu25358 Human pho
27	558	100.0	3724	9	AYE41305	Aye41305 Human PIK
28	558	100.0	7923	8	AW077361	Awo77361 Expressio
29	556.4	99.7	3207	4	AEK13514	Aek13514 Phosphati
30	553.2	99.1	4326	8	AWY98838	Awy98838 Human PIK
31	533.8	95.7	3210	4	AEK13511	Aek13511 Phosphati
32	508.4	91.1	3207	1	AA051155	Aaq51155 p110 cDNA
33	508.4	91.1	3498	1	AAQ57012	Aaq57012 PtdIns 3-
34	457.8	82.0	3207	8	AWY98836	Awy98836 Human PIK
35	457.8	82.0	3207	8	AWY98892	Awy98892 Human PIK
36	271.6	48.7	459	1	AFS99247	Afs99247 Human tra
37	205	36.7	2397	1	AFS82080	Afs82080 Human tra
38	191.8	34.4	412	2	ABX37274	Abx37274 Bovine ES
39	144.8	25.9	3213	1	AAC65690	Aac65690 Human PI3
40	144.8	25.9	3213	1	AAS14366	Aas14366 cDNA enco
41	144.8	25.9	3213	1	ABV78026	Abv78026 Hypoxia-r
42	144.8	25.9	3213	1	AFS81712	Afs81712 Human tra

43	144.8	25.9	3213	2	ADH17146	Adh17146	Human	pho
44	144.8	25.9	3213	3	ACF87607	Acf87607	Human	SIR
45	144.8	25.9	3213	3	AFI63794	Afi63794	Human	cDN

ALIGNMENTS

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ADH68168
    ADH68168 standard; DNA; 3207 BP.
ID
XX
AC
    ADH68168;
XX
    25-MAR-2004 (first entry)
DT
XX
DE
    DNA encoding a PI3K-alpha protein.
XX
    G protein-coupled receptor; GPCR; phosphoinositide 3-kinase; PI3K; HEAT;
KW
    Beta-adrenergic receptor kinase 1; Beta-ARK1; cardiant; antiasthmatic;
KW
    nephrotropic; hypotensive; antianginal; antiarrhythmic;
KW
KW
    antiarteriosclerotic; antiinflammatory; antidiabetic; antiallergic;
KW
     antirheumatic; antiarthritic; antiulcer; cardiant; ophthalmological;
KW
     analgesic; anorectic; antidepressant; tranquilizer; neuroprotective;
KW
     antiparkinsonian; nootropic; virucide; cytostatic; gene; ds.
XX
OS
    Homo sapiens.
XX
PN
    US2003182669-A1.
XX
PD
    25-SEP-2003.
XX
PF
    19-MAR-2002; 2002US-00101235.
XX
PR
    19-MAR-2002; 2002US-00101235.
XX
    (ROCK/) ROCKMAN H A.
PA
PA
    (PRAS/) NAGA PRASAD S V.
PA
    (LAPO/) LAPORTE S A.
    (BARA/) BARAK L S.
PA
    (CARO/) CARON M G.
PA
XX
    Rockman HA, Naga Prasad SV, Laporte SA, Barak LS, Caron MG;
PΤ
XX
DR
    WPI: 2004-141485/14.
    P-PSDB: ADH68169.
DR
XX
```

PT PT Screening compounds useful for the treatment of e.g. asthma and angina

pectoris involves exposing cell comprising labeled molecule to compounds

 $\ensuremath{\mathsf{PT}}$ $\,$ and comparing locations of labeled molecules in presence and absence of $\ensuremath{\mathsf{PT}}$ $\,$ the compound.

Disclosure; SEQ ID NO 7; 71pp; English.

XX PS

CC

CC

aa

CC

CC

CC

CC CC

CC

CC

CC

CC

CC

CC CC

CC

CC

CC

CC

CC

CC

CC

CC

CC CC

CC

CC

CC

ac ac

XX SQ

Οv

The invention relates to a novel method for screening compound(s) for modulating G protein-coupled receptor (GPCR) internalization. The compounds of the invention include modified phosphoinositide 3-kinase (PI3K), modified HEAT domain, and modified Beta-adrenergic receptor kinase 1 (Beta-ARK1). The method involves: exposing a cell comprising labelled molecule to the compound(s); identifying the location of the molecule in the cell; comparing the location in the presence and absence of the compound(s); and correlating difference between the locations. The GPCR modulating compounds have the following activities: cardiant, antiasthmatic, nephrotropic, hypotensive, antianginal, antiarrhythmic, antiarteriosclerotic, antiinflammatory, antidiabetic, antiallergic, antirheumatic, antiarthritic, antiulcer, cardiant, ophthalmological, analgesic, anorectic, antidepressant, tranquilizer, neuroprotective, antiparkinsonian, nootropic, virucide, and cytostatic. The compounds are useful for preventing and treating disease associated with GPCR activity and phosphoinositide 3-kinase (PI3K) activity e.g. cardiovascular disease, heart failure, asthma, nephrogenic diabetes insipidus and hypertension, angina pectoris, essential hypertension, myocardial infarction, suprayentricular and ventricular arrhythmia, atherosclerosis, renal failure, chronic bronchitis, diabetes, respiratory indications e.g. bronchospasm, emphysema, airway obstruction, upper respiratory indications e.g. rhinitis, seasonal allergies, inflammatory disease, rheumatoid arthritis, chronic inflammatory bowel disease, glaucoma, qastrointestinal indications e.g. acid/peptic disorder, oesophagitis, gastrointestinal hyper-secretion, peptic ulcer, pain, obesity, bulimia nervosa, depression, obsessive compulsive disorder, organ malformation, neurodegenerative disorder e.g. Parkinson's disease, Alzheimer's disease, multiple sclerosis, Epstein-Barr infection and cancer. The modified phosphoinositide 3-kinase compound effectively alters the ability of wild

Sequence 3207 BP; 1042 A; 579 C; 674 G; 912 T; 0 U; 0 Other;

the DNA encoding a PI3K-alpha protein of the invention

```
Query Match 100.0%; Score 558; DB 2; Length 3207;
Best Local Similarity 100.0%;
Matches 558; Conservative 0; Mismatches 0; Indels 0; Gaps
```

-type PI3K to bind Beta-ARK-1. This polynucleotide sequence represents

61 CCTCTCTCGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120

0;

```
Db
      1615 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1674
      0v
         Db
      181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
Qy
         1735 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1794
Dh
      241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qv
         Db
      1795 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1854
      301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
0v
         1855 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1914
Db
      361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420
Qу
         1915 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 1974
Db
      421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTAAAATCTGAGATGCACAATAAA 480
Qv
         Db
      1975 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034
Qv
      481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
         Db
      2035 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2094
      541 TTGAAGCACCTGAATAGG 558
Qу
         Db
      2095 TTGAAGCACCTGAATAGG 2112
RESULT 2
AEF64785
ID
   AEF64785 standard; cDNA; 3207 BP.
XX
AC
   AEF64785:
XX
DT
   06-APR-2006 (first entry)
XX
DE
   Human phosphoinositide 3-kinase (PI3K) alpha cDNA.
XX
```

nephrogenic diabetes insipidus; nephrotropic; hypertension; hypotensive;

Screening; diagnostic; gene therapy; cardiovascular disease; cardiovascular-gen.; cardiac failure; cardiant; asthma; antiasthmatic;

ss; gene; phosphoinositide 3-kinase.

KW

KW

KW

KW

```
XX
OS
     Homo sapiens.
XX
FН
     Kev
                    Location/Qualifiers
FT
     CDS
                     1. .3207
FT
                     /*tag= a
FT
                     /product= "Human phosphoinositide 3-kinase (PI3K) gamma
                     protein"
FΤ
XX
PN
     US2006026702-A1.
XX
     02-FEB-2006.
PD
XX
PF
     30-JUL-2004; 2004US-00902137.
XX
PR
     19-MAR-2002; 2002US-00101235.
XX
PA
     (UYDU-) UNIV DUKE.
XX
PΙ
     Rockman HA, Naga PSV, Laporte SA, Barak LS, Caron MG;
XX
DR
     WPI; 2006-153699/16.
DR
     P-PSDB; AEF64786.
XX
PΤ
     Screening compound(s) for modulating GPCR internalization, useful for
PT
     treating cardiovascular disease, asthma, nephrogenic diabetes insipidus,
PΤ
     or hypertension, by providing a cell comprising molecules involved in
     GPCR internalization.
PT
XX
PS
     Disclosure; SEO ID NO 7; 86pp; English.
XX
CC
     The present invention relates to methods for screening compounds and test
CC
     solutions for the activity of modulating G protein-coupled receptor
     (GPCR) internalization. The method involves providing a cell comprising
CC
     molecules involved in GPCR internalization, where the molecules involved
CC
CC
     in GPCR internalization comprise beta-adrenergic receptor kinase 1
CC
     (betaARK1), phosphoinositide 3-kinase (PI3K), GPCR, and arrestin and
CC
     where at least one of the molecules is detectably labeled. The invention
CC
     is useful for treating cardiovascular disease, heart failure, asthma,
     nephrogenic diabetes insipidus and hypertension. The invention is also
CC
CC
     useful in gene therapy and in diagnostic techniques such as immunoassay.
CC
     The present sequence is a human phosphoinositide 3-kinase (PI3K) alpha
CC
     cDNA.
XX
SO
     Sequence 3207 BP; 1042 A; 579 C; 674 G; 912 T; 0 U; 0 Other;
                          100.0%; Score 558; DB 4; Length 3207;
  Ouerv Match
  Best Local Similarity
                         100.0%;
```

0; Gaps

0;

Matches 558; Conservative 0; Mismatches 0; Indels

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Qy
       1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60
         1555 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1614
Db
      61 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120
Qv
         Db
     1615 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1674
      Db
      181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
Qу
         1735 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1794
Db
      241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qy
         Db
     1795 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1854
      301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
Qv
         1855 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1914
Db
      361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTTACTGAAGAAAGCATTG 420
Qу
         Db
     1915 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAGCATTG 1974
Qу
      421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480
         1975 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034
Db
      481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
Qv
         Dh
     2035 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2094
      541 TTGAAGCACCTGAATAGG 558
Qv
         Db
     2095 TTGAAGCACCTGAATAGG 2112
```

RESULT 3 AEK13515

AEK13515 standard; cDNA; 3207 BP.

XX

AC AEK13515;

XX

DT 02-NOV-2006 (first entry)

```
XX
     Phosphatidylinositol 3'-kinase (PI3K) H1047L cDNA SEO ID NO 54.
DE
XX
     cytostatic; gene therapy; mutation; diagnosis; prostate tumor; andrology;
KW
     qenitourinary disease; neoplasm; ovary tumor; endocrine disease;
KW
KW
     qenitourinary disease; gynecology and obstetrics; head & neck tumor;
KW
     bladder tumor; brain tumor; neurological disease; gastrointestinal tumor;
     gastrointestinal disease; colon tumor; breast tumor; lung tumor;
KW
     respiratory disease; phosphatidylinositol 3'-kinase; PI3K; mutant; gene;
KW
KW
     ss.
XX
OS
     Homo sapiens.
XX
                     Location/Oualifiers
FΗ
     Kev
                     1. .3207
FT
     CDS
FT
                     /*tag= a
FT
                     /product= "Phosphatidylinositol 3'-kinase (PI3K) H1047L"
XX
PN
     W02006091899-A2.
XX
PD
     31-AUG-2006.
XX
PF
     23-FEB-2006; 2006WO-US006751.
XX
PR
     24-FEB-2005; 2005US-0656263P.
XX
PΑ
     (AMGE-) AMGEN INC.
XX
PΙ
     Freeman D, Juan T, Radinsky R;
XX
DR
     WPI: 2006-648484/67.
DR
     P-PSDB; AEK13478.
XX
PΤ
     New isolated epidermal growth factor receptor (EGFr) polypeptides, useful
     for treating EGFr-related cancer, e.g. non-small cell lung carcinoma,
PT
     breast, colon, gastric, brain, bladder, head and neck, ovarian, and
PΤ
PT
     prostate carcinomas.
XX
PS
     Example 1; SEQ ID NO 54; 292pp; English.
XX
CC
     The invention describes an isolated epidermal growth factor receptor
CC
     (EPGFr) polypeptide comprising at least one amino acid sequence having
CC
     766-1211 amino acids (SEO ID NO: 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16,
CC
     17, 19, or 20), given in the specification. The isolated polypeptide,
     polynucleotides, and methods are useful for treating an EGFr-related
     cancer, e.g. non-small cell lung carcinoma, breast, colon, gastric,
CC
CC
     brain, bladder, head and neck, ovarian, and prostate carcinomas. This
     sequence enodes human Phosphatidvlinositol 3'-kinase (PI3K) H1047L
CC
     mutant.
```

1975 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034

481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540

2035 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2094

RESULT 4

Db

Qy

Db

Qv

Dh

541 TTGAAGCACCTGAATAGG 558

2095 TTGAAGCACCTGAATAGG 2112

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AEK13519
ID
    AEK13519 standard; cDNA; 3207 BP.
XX
A.C.
    AEK13519;
XX
DT
    11-JUN-2007 (revised)
DT
    02-NOV-2006 (first entry)
XX
    Phosphatidylinositol 3'-kinase (PI3K) cDNA SEO ID NO 58.
DE.
XX
KW
    cytostatic; gene therapy; mutation; diagnosis; prostate tumor; andrology;
KW
     qenitourinary disease; neoplasm; ovary tumor; endocrine disease;
    genitourinary disease; gynecology and obstetrics; head & neck tumor;
KW
    bladder tumor; brain tumor; neurological disease; gastrointestinal tumor;
KW
    gastrointestinal disease; colon tumor; breast tumor; lung tumor;
KW
    respiratory disease; phosphatidylinositol 3'-kinase; PI3K; gene; ss.
KW
XX
    Homo sapiens.
OS
XX
                    Location/Oualifiers
FΗ
    Kev
FT
    CDS
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FΤ
                     /*tag= a
FT
                     /product= "PI3K"
XX
PN
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XX
PD
    31-AUG-2006.
XX
PF
    23-FEB-2006; 2006WO-US006751.
XX
PR
    24-FEB-2005; 2005US-0656263P.
XX
PA
    (AMGE-) AMGEN INC.
XX
PΙ
    Freeman D, Juan T, Radinsky R;
XX
    WPI; 2006-648484/67.
DR
DR
    P-PSDB; AEK13475.
DR
    PC:NCBI; qi1763625.
    PC ENCPRO:NCBI: gi1763626.
DR
XX
    New isolated epidermal growth factor receptor (EGFr) polypeptides, useful
PT
PТ
    for treating EGFr-related cancer, e.g. non-small cell lung carcinoma,
PΤ
    breast, colon, gastric, brain, bladder, head and neck, ovarian, and
PT
    prostate carcinomas.
XX
PS
    Example 1; SEO ID NO 58; 292pp; English.
XX
CC
    The invention describes an isolated epidermal growth factor receptor
```

```
SCORE Search Results Details for Application 10591347 and Search Result 20110118_143719_us-10-591-347-2_copy_1567_2124.rng.
CC
    (EPGFr) polypeptide comprising at least one amino acid sequence having
    766-1211 amino acids (SEQ ID NO: 2, 3, 5, 6, 7, 8, 9, 10, 12, 13, 15, 16,
CC
CC
    17, 19, or 20), given in the specification. The isolated polypeptide,
CC
    polynucleotides, and methods are useful for treating an EGFr-related
CC
    cancer, e.g. non-small cell lung carcinoma, breast, colon, gastric,
    brain, bladder, head and neck, ovarian, and prostate carcinomas. This
CC
    sequence encodes wild type human Phosphatidylinositol 3'-kinase (PI3K).
CC
CC
    Revised record issued on 11-JUN-2007: Enhanced with precomputed
CC
    information from BOND.
XX
SO
    Sequence 3207 BP; 1043 A; 586 C; 670 G; 908 T; 0 U; 0 Other;
 Ouerv Match
                     100.0%; Score 558; DB 4; Length 3207;
 Best Local Similarity 100.0%;
 Matches 558; Conservative 0; Mismatches
                                         0; Indels
                                                    0; Gaps
                                                              0;
         1 AGAGACAATGAATTAAGGGAAAATGACAAGGAACAGCTCAAAGCAATTTCTACACGAGAT 60
Qv
           Db
       1555 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1614
        61 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120
Qv
           Db
       1615 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1674
Qу
       Db
       Qу
        181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
           Db
       1735 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1794
       241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qv
           Db
       1795 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1854
       301 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
Qv
```

1855 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1914

361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420

1915 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGAATTTTTACTGAAGAAAGCATTG 1974 421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480

1975 ACTAATCAAAGGATTGGGCACTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034

Db

Qу

Db

Qy

Db

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Qv
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             Db
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        541 TTGAAGCACCTGAATAGG 558
Qν
             Db
        2095 TTGAAGCACCTGAATAGG 2112
RESULT 5
ARL60529
ID
    ARL60529 standard: DNA: 3207 BP.
XX
AC
    ARL60529;
XX
DT
    16-OCT-2008 (first entry)
XX
DE
    Human phosphoinositide-3-kinase catalytic alpha (PIK3CA) DNA, SEQ ID 23.
XX
     anti-hiv; antibacterial; antibiotic; bacterial infection; cancer;
KW
KW
    chlamydia infection; cns-gen.; coding sequence; cystic fibrosis;
KW
    cytostatic; diagnostic test; ds; enzyme inhibition;
KW
     escherichia coli infection; haemophilus infection; immune deficiency;
KW
    immunostimulant; legionella infection; leishmania infection; leukemia;
    lung infection; mycobacterium infection; neutropenia; pharmaceutical;
KW
KW
    prophylactic to disease; respiratory-gen.; salmonella infection;
KW
    staphylococcus infection; therapeutic; PIK3CA;
KW
    phosphoinositide-3-kinase catalytic alpha.
XX
OS
    Homo sapiens.
XX
PN
    W02008026075-A2.
XX
PD
    06-MAR-2008.
XX
PF
    31-AUG-2007; 2007WO-IB003553.
XX
PR
    31-AUG-2006; 2006GB-00017222.
XX
PA
    (VEHE-) VER HET NEDERLANDS KANKER INST.
PA
    (ZIEK-) ACAD ZIEKENHUIS LEIDEN.
    (UYLE-) RIJKSUNIV LEIDEN.
PΑ
XX
PΙ
    Neefjes JJ, Overkleeft HS, Ottenhoff THM, Savage NDL, Tuin AW;
    Marsman M, Kuijl CP:
PΙ
XX
    WPI; 2008-L13796/65.
DR
    REFSEO; NM 0062182.
DR
XX
```

PT Use of protein kinase inhibitor for the manufacture of medicament for treating intracellular bacterial infection in subject.

Claim 14; SEQ ID NO 23; 238pp; English.

PS

CC

CC

aa

CC

CC

CC

CC CC

CC

CC

CC

CC

CC

aa aa

CC

CC

CC

CC

CC CC

CC

CC

CC

CC

CC

CC

CC XX SO

Db

The present invention relates to the use of protein kinase inhibitors for the manufacture of medicament for treating intracellular bacterial infections. The inhibitor can be an organic compound or its isomers, salts, solvates, chemically protected forms, or pro-drugs; an inhibitor of the protein kinases; a ribozyme or RNA1 molecule that targets mRNA encoding the protein kinase; a polynucleotide encoding a ribozyme or RNAi molecule: or an antisense polynucleotide that is complementary to a polynucleotide sequence encoding the protein kinase or its variant or fragment. The invention was carried out by: (i) screening kinase inhibitors for an effect on intracellular growth of salmonella, (ii) synthesis of H-89 variants, (iii) testing the effect of H-89 and H-89 variants on bacterial intracellular growth, (iv) identification of host cell kinases involved in intracellular salmonella growth using an shRNAi library, (v) testing kinases for inhibition by H-89 and H-89 variants, (vi) testing H-89 variants for an inhibitory effect on multi-drug resistant bacteria and their in vivo antibacterial effect, (vii) siRNA screening of human kinome, (viii) testing of the PKB/Aktl inhibitors for bactericidal effect. The protein kinase inhibitors of the present invention are used for the manufacture of medicament for treating intracellular bacterial infection (chlamydia infection, escherichia coli infection, haemophilus infection, legionella infection, leishmania infection, mycobacterium infection, salmonella infection, staphylococcus infection). The method of the invention can be used to target diseases or conditions in which intracellular bacterial infection is implicated, namely neutropenia, immunodeficiency, acquired immune deficiency syndrome, leukemia, cancer patients treated with cytostatic agents, lung infections associated with cystic fibrosis. The present sequence is the coding sequence of human phosphoinositide-3-kinase catalytic alpha polypeptide (PIK3CA), the inhibition of which inhibits intracellular bacterial growth related to the invention.

Sequence 3207 BP; 1043 A; 584 C; 669 G; 911 T; 0 U; 0 Other;

```
Query Match 100.0%; Score 558; DB 7; Length 3207;
Best Local Similarity 100.0%;
Matches 558; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Qy 61 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120

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Qy
      121 GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTTTAAATGGAATTCTAGAGAT 180
         Db
      181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
Qv
         Db
      1735 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1794
      241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qv
         Db
      1795 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1854
Qу
      301 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
         Db
      1855 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1914
      361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420
Qv
         Dh
      1915 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAGCATTG 1974
      421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480
Qv
         Dh
      1975 ACTAATCAAAGGATTGGGCACTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034
Qу
      481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
         Db
      2035 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2094
      541 TTGAAGCACCTGAATAGG 558
Qу
         Db
      2095 TTGAAGCACCTGAATAGG 2112
RESULT 6
AA051156
   AAO51156 standard; cDNA; 3412 BP.
TD
XX
AC
   AAQ51156;
```

```
XX
DT
     25-MAR-2003 (revised)
     12-APR-1994 (first entry)
DT
XX
DE
     Human p110 cDNA.
XX
```

KW

KW

cell proliferation; inhibition; prophylaxis; therapy; platelets; neutorphil activity; 3-phosphorylated phosphoinositides; ds. KW XX

Phosphoinositide kinase: PI: p85 subunit: screening: agonist: antagonist:

```
OS
     Homo sapiens.
XX
                   Location/Oualifiers
FΗ
     Kev
FT
     CDS
                    1. .3207
FT
                    /*tag= a
FT
                    /note= "PI3- kinase p110"
XX
     W09321328-A1.
PN
XX
PD
     28-OCT-1993.
XX
PF
     13-APR-1993: 93WO-GB000761.
XX
PR
     13-APR-1992; 92GB-00008135.
XX
PA
    (LUDW-) LUDWIG INST CANCER RES.
XX
PΙ
     Hiles ID, Fry MJ, Dhand R, Waterfield MD, Parker PJ, Otsu M;
PΙ
     Panavotou G. Volinia S. Gout I:
XX
DR
     WPI; 1993-351738/44.
DR
     P-PSDB; AAR43342.
XX
PT
     Recombinant polypeptide(s) - with phosphoinositide-3 kinase activity,
PΤ
     useful for controlling cell proliferation.
XX
PS
     Claim 7; Fig 16; 146pp; English.
XX
CC
     Southern blot analysis was performed using a bovine cDNA probe contg. a
CC
     fragment of a PI3-kinase-encoding sequence and human cDNA isolated from a
CC
     cDNA library constructed from mRNA isolated from the human cell line
CC
     KG1a. Positive clones were sequenced to give the human PI3 kinase p110
CC
     sequence shown. This sequence has 95 percent homology with the bovine
CC
     sequence. The domain encoding residues 19- 100 of human p110 is
CC
     sufficient to encode the kinase which will associate with the p85 kinase
CC
     subunit. The gene may be used to provide a protein with PI3 kinase
CC
     activity, and is useful for screening for (ant)agonists of PI3 kinase
     activity which could be useful for stimulation or inhibition of cell
CC
CC
     proliferation and hence prophylaxis or therapy. Platelet or neutrophil
     activity or blood glucose levels can be controlled using the kinase. See
CC
CC
     also AAQ51155 and AAQ57522-3. (Updated on 25-MAR-2003 to correct PN
CC
     field.) (Updated on 25-MAR-2003 to correct PI field.)
XX
SQ
     Sequence 3412 BP; 1128 A; 616 C; 706 G; 962 T; 0 U; 0 Other;
 Ouerv Match
                         100.0%; Score 558; DB 1; Length 3412;
  Best Local Similarity 100.0%;
  Matches 558; Conservative 0; Mismatches 0; Indels 0; Gaps
                                                                            0;
```

```
Qv
       1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60
         Db
     1555 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1614
       61 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120
Qv
         1615 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1674
Db
      Qу
         Db
      181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
Qy
         Db
     1735 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1794
      241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qv
         Db
     1795 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1854
      301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
Qу
         Db
     1855 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1914
      361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420
QУ
         Db
     1915 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGAATTTTTACTGAAGAAAGCATTG 1974
Qy
      421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480
         Db
     1975 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034
      481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
Qv
         Db
      2035 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2094
      541 TTGAAGCACCTGAATAGG 558
         Db
      2095 TTGAAGCACCTGAATAGG 2112
RESULT 7
AED31617
   AED31617 standard; cDNA; 3412 BP.
ID
XX
AC
   AED31617:
XX
```

DT

XX

15-DEC-2005 (first entry)

```
SCORE Search Results Details for Application 10591347 and Search Result 20110118_143719_us-10-591-347-2_copy_1567_2124.rng.
```

```
DE
     cDNA (SEQ ID No:1) encoding human phosphatidylinositol 3-kinase (PIK3CA).
XX
     cancer; neoplasm; phosphatidylinositol 3-kinase; PIK3CA; tumor;
KW
     chemotherapy; cytostatic; RNA interference; gene silencing;
KW
KW
     antisense therapy; gene; ss.
XX
OS
     Homo sapiens.
XX
                    Location/Qualifiers
FH
     Kev
FT
     CDS
                     1. .3207
FT
                     /*tag= a
                     /product= "PIK3CA"
FT
XX
PN
     W02005091849-A2.
XX
PD
     06-OCT-2005.
XX
PF
     18-FEB-2005: 2005WO-US005193.
XX
     02-MAR-2004; 2004US-0548886P.
PR
XX
PΑ
     (UYJO ) UNIV JOHNS HOPKINS.
XX
PΙ
     Samuels Y. Velculescu V. Kinzler KW. Vogelstein B:
XX
DR
     WPI; 2005-713721/73.
DR
     P-PSDB; AED31619.
XX
PT
     Assessing cancer in a human suspected of having cancer, by determining a
PΤ
     non-synonymous, intragenic mutation in a phosphatidylinositol 3-kinase
PΤ
     (PIK3CA) coding sequence in the body sample from a human.
XX
PS
     Disclosure; SEQ ID NO 1; 107pp; English.
XX
CC
     The invention relates to a method of assessing cancer in a body sample of
     a human suspected of having cancer. The method comprises determining a
CC
CC
     non-synonymous, intragenic mutation in a phosphatidylinositol 3-kinase
CC
     (PIK3CA) coding sequence in the body sample, and identifying the human as
CC
     likely to have cancer if a non-synonymous, intragenic mutation in PIK3CA
CC
     coding sequence is determined in the body sample. Also described are: (1)
CC
     a method of inhibiting progression of a tumor in a human; (2) a method of
CC
     identifying candidate chemotherapeutic agents; (3) a method for
CC
     delivering an appropriate chemotherapeutic drug to a patient in need; and
CC
     (4) a set of one or more primers for amplifying and/or sequencing PIK3CA,
CC
     the primers selected from forward primers, reverse primers, or sequencing
     primers, where the forward primers are selected from sequences given as
CC
CC
     SEO ID NOs 6-165, the reverse primers are selected from sequences given
     as SEO ID NOs 166-325, and the sequencing primers are selected sequences
CC
CC
     given as SEQ ID NOs 326-485 in the specification. The method of the
```

invention is useful for assessing cancer in a body sample of a human suspected of having cancer, inhibiting progression of a tumor in a human, CC identifying candidate chemotherapeutic agents, and delivering an CC appropriate chemotherapeutic drug to a patient in need. This sequence encodes human PIK3CA. XX SO Sequence 3412 BP; 1128 A; 616 C; 706 G; 962 T; 0 U; 0 Other; 100.0%; Score 558; DB 4; Length 3412; Ouerv Match Best Local Similarity 100.0%; Matches 558; Conservative 0; Mismatches 0: Indels 0; Gaps 0; 1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60 Qy 1555 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1614 Db 61 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120 Qу 1615 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1674 Db Qу Db 181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240 Qу Db 1735 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1794 Qy 241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300 1795 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1854 Db 301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360 Qv 1855 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1914 Db 361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTTACTGAAGAAAGCATTG 420 1915 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGAATTTTTACTGAAGAAAGCATTG 1974 Db 421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480 Qу 1975 ACTAATCAAAGGATTGGGCACTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2034 Db

541 TTGAAGCACCTGAATAGG 558

Qv

Db

Qv.

481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540

2035 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2094

```
Db
```

```
RESULT 8
ADU05935
```

ID ADU05935 standard: DNA: 3423 BP.

XX

A.C. ADU05935:

XX DT

27-JAN-2005 (first entry) XX

DE

Novel bronchial cancer-associated human gene SegID157. XX

KW

bronchial cancer; cytostatic; tumour-associated protein; KW cancer detection; metastasis; tumour; gene; ds; human.

XX

OS Homo sapiens.

XX PN

DE10316701-A1.

XX PD

04-NOV-2004.

XX

PF 09-APR-2003; 2003DE-01016701.

XX

09-APR-2003; 2003DE-01016701.

PR XX

PA PA

(HINZ/) HINZMANN B. (HERM/) HERMANN K.

PΑ XX

(CAST/) HEIDEN CASTANOS-VELEZ E.

PΙ

Mennerich D, Bruemmendorf T, Heiden E, Hermann K, Kinnemann H; Li X, Roepcke S, Staub E, Hinzmann B, Rosenthal A, Pilarsky C;

PΙ XX

DR WPI: 2004-786403/78. P-PSDB; ADU06422.

DR

XX PΤ New nucleic acid, and derived proteins, useful for diagnosis of bronchial cancer and in screening for therapeutic and diagnostic agents.

PΤ XX

Claim 1; SEQ ID NO 157; 1381pp; German.

PS XX

CC This invention relates to a novel isolated nucleic acid associated with bronchial cancer comprising 489 defined sequences given in the

CC

specification. The invention may be useful for the production of compounds with a cytostatic activity through the inhibition of expression CC CC or activity of tumour-associated proteins. The novel DNA sequences and

the proteins/peptides encoded by them are used for detecting bronchial CC CC cancer or determining the risk of developing it and to screen for

SCORE Search Results Details for Application 10591347 and Search Result 20110118 143719 us-10-591-347-2 copy 1567 2124.rng. CC specific binding partners of the DNA or protein sequences, where the binding partners are potentially useful as agents for treating or CC CC diagnosing bronchial cancer. The DNA or protein sequences can also be CC used for prognosis, detection of metastases and for secondary treatment CC (of tumours that have been stabilised or are no longer detectable). Detecting abnormal expression of the DNA sequences provides early CC diagnosis of bronchial cancers. The present sequence is that of a novel CC bronchial cancer-associated human gene sequence of the invention. CC XX SO Sequence 3423 BP; 1134 A; 618 C; 709 G; 962 T; 0 U; 0 Other; Query Match 100.0%; Score 558; DB 3; Length 3423; Best Local Similarity 100.0%; Matches 558; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60 Qν Db 1567 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1626 61 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120 Qу Db 1627 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1686 Qу Db Qv 181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240 Dh 241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300 Qу Db 301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360 Qу Db

1747 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1806 1807 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1866 1867 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1926 361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420 Qy 1927 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAGCATTG 1986 Dh 421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480 Qv Db 1987 ACTAATCAAAGGATTGGGCACTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2046 481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540 0v http://es/ScoreAccessWeb/GetItem.action?AppId=105913...-591-347-2_copy_1567_2124.rng&ItemType=4&startByte=0 (20 of 37)2/3/2011 2:01:13 PM

2047 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2106

Db

```
541 TTGAAGCACCTGAATAGG 558
Οv
              Db
         2107 TTGAAGCACCTGAATAGG 2124
RESHLT 9
AAS14365
    AAS14365 standard; cDNA; 3424 BP.
ID
XX
AC
    AAS14365:
XX
    11-JUN-2007 (revised)
DT
    12-MAR-2002 (first entry)
DT
XX
DE
    cDNA encoding human p110alpha isoform of PI3-kinase.
XX
    Human; phosphatidvlinositol 3-kinase; PI3K; p110alpha isoform; LASP-1;
KW
    cancer; inflammatory disease; ophthalmic disorder; SH3 domain;
KW
     autoimmune disease; inflammatory bowel disease; bacterial pneumonia;
KW
KW
     Type I diabetes mellitus; cytostatic; immunosuppressive; ss.
XX
OS
    Homo sapiens.
XX
FΗ
    Kev
                    Location/Qualifiers
FT
    CDS
                    13. .3219
FT
                     /*tag= a
FT
                     /product= "p110alpha isoform of PI3-kinase"
XX
PN
    WO200185986-A2.
XX
PD
    15-NOV-2001.
XX
PF
    10-MAY-2001; 2001WO-US015065.
XX
    10-MAY-2000; 2000US-0203346P.
PR
XX
PΑ
    (ICOS-) ICOS CORP.
XX
PΙ
    Sadhu C:
XX
DR
    WPI; 2002-075252/10.
DR
    P-PSDB; AAU09687.
DR
    PC:NCBI; qi472990.
DR
    PC ENCPRO:NCBI: gi472991.
XX
    Identifying a modulator of p110delta polypeptide binding to SH3 domain-
PT
PT
    containing polypeptides e.g. LASP-1, comprising allowing the binding
```

```
PΤ
    partners to interact in the presence and absence of a test compound.
XX
PS
    Example 1; Page 55-60; 85pp; English.
XX
CC
    The present invention relates to identifying a modulator of the
    phosphatidylinositol 3-kinase (PI3K; p110delta) enzyme that binds to the
CC
CC
    catalytic subunit via a SH3 domain-containing polypeptide such as LASP-1.
    Also described are methods of assaying the specific binding affinity of
CC
    the PI3-kinase binding partner. Such modulators are useful for the
CC
    treatment of diseases characterised by the undesirable or excessive
CC
    activity of PI3Kdelta. For example the modulators can be used for
CC
    inhibiting the growth or proliferation of cancer cells (e.g. malignant
    neoplasms of lymphoid and reticuloendothelial tissues, Hodgkin's
CC
CC
    lymphoma, leukaemias), inflammatory diseases (e.g. rheumatoid arthritis),
CC
    ophthalmic disorders (e.g. allergic conjunctivitis), autoimmune diseases
CC
    (e.g. systematic lupus erythematosus), inflammatory bowel diseases (e.g.
    chronic inflammatory bowel disease), inflammatory dermatoses (e.g.
CC
    contact dermatitis; central or peripheral nervous system inflammatory
CC
CC
    disorders (e.g. meningitis), bacterial pneumonia, and Type I diabetes
    mellitus. The present sequence encodes for human p110alpha isoform of
CC
CC
    PT3k
CC
CC
    Revised record issued on 11-JUN-2007: Enhanced with precomputed
CC
    information from BOND.
XX
SO
    Sequence 3424 BP; 1134 A; 618 C; 709 G; 963 T; 0 U; 0 Other;
 Query Match
                      100.0%; Score 558; DB 1; Length 3424;
 Best Local Similarity
                     100.0%;
 Matches 558; Conservative 0; Mismatches
                                           0; Indels
                                                       0; Gaps
                                                                 0;
          1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60
Qу
            Db
       1567 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1626
         61 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120
Qу
            Db
       1627 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1686
        121 GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTTTAAATGGAATTCTAGAGAT 180
Qv
            Dh
        181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
Qv
            Db
       1747 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1806
0v
        241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
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SCORE Search Results Details for Application 10591347 and Search Result 20110118_143719_us-10-591-347-2_copy_1567_2124.rng.
```

1807 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1866

Db

XX PA

```
301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
Οv
           Db
       1867 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1926
        361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAGCATTG 420
Qy
           1927 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 1986
Dh
        421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480
Qv
           1987 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2046
Dh
        481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
0v
            Db
       2047 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2106
Οv
        541 TTGAAGCACCTGAATAGG 558
           11111111111111111111
Db
       2107 TTGAAGCACCTGAATAGG 2124
RESULT 10
ABL59523
TD
   ABL59523 standard; cDNA; 3424 BP.
XX
AC.
   ABL59523:
XX
    11-JUN-2007 (revised)
DT
    16-JUL-2002 (first entry)
DT
XX
DE
    Human phosphatidylinositol-3-kinase catalytic alpha cDNA SEQ ID NO:23.
XX
    Human; phosphatidylinositol-3-kinase catalytic alpha; enzyme; tumour;
KW
    lipid associated gene; lipid metabolism; lipid synthesis;
KW
    chromosome 3q26.3; gene; ss.
KW
XX
    Homo sapiens.
OS
XX
    W0200227028-A1.
PN
XX
PD
    04-APR-2002.
XX
PF
    27-SEP-2001: 2001WO-US030366.
XX
    28-SEP-2000; 2000US-00676052.
PR
```

(ATAI-) ATAIRGIN TECHNOLOGIES INC.

Skinner MK, Patton JL, Chaudharv J;

XX

XX

```
DR
    WPI; 2002-405056/43.
DR
    PC:NCBI; qi472990.
    PC_ENCPRO:NCBI; gi472991.
DR
XX
PT
    Identifying tumor characteristics in a tissue sample taken from a
    patient, involves determining the copy number or expression level of
PТ
PΤ
    genes associated with lipid metabolism, synthesis or action.
XX
PS
    Example 1; Page 82-83; 113pp; English.
XX
CC
    The present invention describes a method for identifying tumour
CC
    characteristics, comprising measuring a copy number or expression level
    of at least two genes associated with lipid metabolism, synthesis, or
CC
CC
    action in cells from a patient tissue sample, and comparing the results
    with a copy number or expression level of the genes in a normal cell.
CC
CC
    Also described is an array of nucleic acid polymers immobilised on a
CC
    solid support, comprising a solid support, at least two different nucleic
CC
    acid polymers which are each specific for a different gene associated
CC
    with lipid metabolism, synthesis or action, where each nucleic acid
CC
    polymer is located at a predetermined position on the solid support, and
CC
    the array comprises nucleic acid polymers which are specific for less
CC
    than 100 genes other than the selected genes. The method is useful for
CC
    determining tumour characteristics in a tissue sample taken from a
CC
    patient. The present sequence represents a human lipid-associated gene
CC
    related cDNA sequence, which is used in the exemplification of the
CC
    present invention
CC
CC
    Revised record issued on 11-JUN-2007: Enhanced with precomputed
CC
    information from BOND.
XX
SO
    Sequence 3424 BP; 1134 A; 618 C; 709 G; 963 T; 0 U; 0 Other;
 Ouerv Match
                       100.0%; Score 558; DB 1; Length 3424;
 Best Local Similarity
                       100.0%;
 Matches 558; Conservative 0; Mismatches
                                             0; Indels
                                                          0; Gaps
                                                                    0;
          1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60
Qy
            1567 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1626
Db
         61 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120
Qv
            1627 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1686
Db
Οv
```

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Db
       1687 GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTTTAAATGGAATTCTAGAGAT 1746
       181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
0v
           1747 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1806
Db
       241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qy
           1807 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1866
Dh
       301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
Qv
           Db
       1867 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1926
       361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420
0v
           1927 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGAATTTTTACTGAAGAAAGCATTG 1986
Db
       421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTAAAATCTGAGATGCACAATAAA 480
Οv
           1987 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2046
Db
       481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
Qv
           Db
       2047 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2106
Qv
       541 TTGAAGCACCTGAATAGG 558
          Db
       2107 TTGAAGCACCTGAATAGG 2124
RESULT 11
ADE85076
ID
   ADE85076 standard; DNA; 3424 BP.
XX
AC
   ADE85076:
XX
DT
   11-JUN-2007 (revised)
DT
   29-JAN-2004 (first entry)
XX
   Farnesyl transferase inhibitor modulated leukemia associated gene #295.
DE
XX
    ss; cytostatic; farnesyl transferase inhibitor; gene expression;
KW
   quinolinone; leukemia; cancer.
KW
XX
OS
   Homo sapiens.
XX
   W02003038129-A2.
PN
XX
```

```
SCORE. Search Results \ Details \ for \ Application \ 10591347 \ and \ Search \ Result \ 20110118\_143719\_us-10-591-347-2\_copy\_1567\_2124.rng.
```

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PD
     08-MAY-2003.
XX
PF
     30-OCT-2002; 2002WO-US034784.
XX
PR
    30-OCT-2001; 2001US-0338997P.
    30-OCT-2001: 2001US-0340081P.
PR
     30-OCT-2001: 2001US-0340938P.
PR
     30-OCT-2001; 2001US-0341012P.
PR
XX
PΑ
    (ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.
XX
PΙ
     Raponi M;
XX
     WPI; 2003-513497/48.
DR
     PC:NCBI; qi472990.
DR
DR
     PC_ENCPRO:NCBI; gi472991.
XX
PT
     Determining whether a patient will respond to treatment with a farnesyl
PΤ
     transferase inhibitor, by analyzing the expression of gene that is
     differentially modulated in the presence of the inhibitor.
PT
XX
PS
     Disclosure; SEQ ID NO 295; 346pp; English.
XX
CC
     The invention relates to a method of determining whether a patient will
CC
     respond to treatment with a farnesyl transferase inhibitor (FTI), by
CC
     analyzing the expression of gene that is differentially modulated in the
     presence of an FTI. The method is useful for determining whether a
CC
     patient will respond to treatment with a FTI such as (B)-6-[amino(4-
CC
     chlorophenyl)(1-methyl-1H-imidazol-5-yl)methyl]-4-(3-chlorophenyl)-1-
CC
CC
     methyl-2-(1H) guinolinone, monitoring the therapy of a patient, treating a
CC
     patient with leukemia with FTI if the analysis indicates that the patient
CC
     will respond. This sequence corresponds to a gene whose expression may be
CC
     modulated in the presence of FTI.
CC
CC
     Revised record issued on 11-JUN-2007: Enhanced with precomputed
CC
     information from BOND.
XX
SQ
     Sequence 3424 BP; 1134 A; 618 C; 709 G; 963 T; 0 U; 0 Other;
                          100.0%: Score 558: DB 2: Length 3424:
  Ouerv Match
  Best Local Similarity 100.0%;
  Matches 558; Conservative 0; Mismatches
                                                   0; Indels
                                                                 0; Gaps
                                                                             0;
            1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60
Qv.
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Db 1567 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1626

Qy 61 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120

```
Db
      1627 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1686
      0v
         Db
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Qy
         1747 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1806
Dh
      241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qv
         Db
      1807 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1866
      301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
0v
         1867 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1926
Db
      361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420
Οv
         1927 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 1986
Db
      421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480
Qv
         Db
      1987 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2046
Qv
      481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
         Db
      2047 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2106
      541 TTGAAGCACCTGAATAGG 558
Οv
         2107 TTGAAGCACCTGAATAGG 2124
Db
RESULT 12
ADZ00490
ID
   ADZ00490 standard; cDNA; 3424 BP.
XX
AC
   ADZ00490:
XX
   11-JUN-2007 (revised)
DT
DT
   16-JUN-2005 (first entry)
XX
DE
   p110-beta coding sequence.
XX
   ss; Anorectic; Antidiabetic; p110-beta; phosphoinositide 3-kinase; p85;
```

ras; insulin resistance; obesity; gene.

KW KW

XX

```
OS
     Homo sapiens.
XX
                    Location/Qualifiers
FH
    Kev
FT
     CDS
                     13. .3219
FT
                     /*tag= a
XX
PN
     W02005031341-A2.
XX
PΠ
     07-APR-2005.
XX
PF
     28-SEP-2004; 2004WO-IB003926.
XX
     29-SEP-2003; 2003US-0507226P.
PR
     13-JUL-2004; 2004US-0587333P.
PR
XX
PA
     (PFIZ ) PFIZER HEALTH AB.
XX
PΙ
     Bougneres P;
XX
DR
     WPI; 2005-273421/28.
DR
     P-PSDB; ADZ00491.
DR
    GENBANK; Z29090.
DR
     PC:NCBI; qi472990.
DR
     PC ENCPRO:NCBI; gi472991.
XX
PΤ
     Predicting a subject's likelihood of developing insulin resistance,
PΤ
     useful for treating insulin resistance and obesity, comprises determining
PT
     in a subject the identity of an allele at position 100 of a specific
PT
     sequence.
XX
PS
     Disclosure; SEO ID NO 2; 88pp; English.
XX
CC
     This sequence represents the p110-beta gene. p110-beta is a catalytic
CC
     subunit of a phosphoinositide 3-kinase, which also comprises a regulatory
     subunit of about 85 kD. The p110 protein comprises a kinase domain at the
CC
CC
     C-terminus, and a p85 and ras binding domain at the N-terminus. The
CC
     method of the invention for predicting a subject's likelihood of
CC
     developing insulin resistance comprises determining in a subject the
CC
     identity of the nucleotide present at a position corresponding to
CC
     position -359 of the p110-beta gene , where the allele comprising the
CC
     nucleotide is correlated with an increased or decreased likelihood of
CC
     developing insulin resistance. The method of the invention is useful for
CC
     treating obesity and insulin resistance and for assessing and conducting
CC
     clinical trials of medicaments.
CC
CC
     Revised record issued on 11-JUN-2007: Enhanced with precomputed
CC
     information from BOND.
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Sequence 3424 BP; 1134 A; 618 C; 709 G; 963 T; 0 U; 0 Other;

XX SQ

	cal	100.0%; Score 558; DB 4; Length 3424; Similarity 100.0%; 8; Conservative 0; Mismatches 0; Indels 0; Gaps	0;
Qy	1	AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT	60
Db	1567	AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT	1626
Qу	61	$\tt CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT$	120
Db	1627	CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT	1686
Qy	121	${\tt GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTCTG$	180
Db	1687	GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTCTG	1746
Qy	181	GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT	240
Db	1747	GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT	1806
Qy	241	${\tt ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC}$	300
Db	1807	ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC	1866
Qy	301	$\tt TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC$	360
Db	1867	TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC	1926
Qy	361	$\tt CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG$	420
Db	1927	CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG	1986
Qy	421	${\tt ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA}$	480
Db	1987	ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA	2046
Qy	481	${\tt ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT}$	540
Db	2047	ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT	2106
Qy	541	TTGAAGCACCTGAATAGG 558	
Db	2107		

RESULT 13 AEH10445

ID AEH10445 standard; cDNA; 3424 BP.

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SCORE Search Results Details for Application 10591347 and Search Result 20110118_143719_us-10-591-347-2_copy_1567_2124.rng.
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XX
AC
     AEH10445:
XX
DT
     11-JUN-2007 (revised)
DT
     01-JUN-2006 (first entry)
XX
DE
     PIK3CA cDNA SEO ID 831.
XX
     gene expression; prognosis; diagnosis; DNA microarray;
KW
KW
     colorectal disease; colon tumor; colorectal tumor; cytostatic;
KW
     gastrointestinal disease; neoplasm; ss.
XX
     Unidentified.
OS
XX
PN
     W02005054508-A2.
XX
PD
     16-JUN-2005.
XX
PF
     01-DEC-2004; 2004WO-IB004323.
XX
PR
     01-DEC-2003; 2003US-0525987P.
PR
     01-DEC-2004; 2004US-00000688.
XX
PA
     (IPSO-) IPSOGEN.
PA
     (INRM ) INSERM INST NAT SANTE & RECH MEDICALE.
PA
     (PAOL-) INST PAOLI CALMETTES IPC.
XX
PΙ
     Bertucci F, Houlgatte R, Birnbaum D, Debono S;
XX
     WPI: 2005-435408/44.
DR
DR
     PC:NCBI; q1472990.
XX
PΤ
     Analyzing differential gene expression associated with histopathologic
     features of colorectal disease, involves detecting overexpression or
PΤ
     underexpression of pool of polynucleotide sequences in colon tissues.
PT
XX
PS
     Claim 1; SEO ID NO 831; 154pp; English.
XX
CC
     The invention describes a method of analyzing (M1) differential gene
     expression associated with histopathologic features of colorectal
CC
CC
     disease, comprising detecting overexpression or underexpression of a pool
     of polynucleotide sequences in colon tissues, the pool selected in each
CC
CC
     of predefined polynucleotide sequence sets chosen from any one of 644
CC
     sequence sets comprising combinations of SEQ ID No. 1-1596, fully defined
CC
     in the specification. Also described are: a polynucleotide library (I)
     useful for the molecular characterization of a colon cancer, comprising
CC
CC
     or corresponding to a pool of polynucleotide sequences either
     overexpressed or underexpressed in colon tissue, the pool corresponding
CC
CC
     to all or part of the polynucleotide sequence chosen from PS1; and
```

CC

CC CC

CC

CC

CC CC

CC

CC

CC

CC

CC

CC CC

CC

CC

CC

CC CC

CC CC

CC

CC

CC

CC

CC

CC

CC

CC

CC CC

CC CC

CC

XX

Query Match

assigning (M2) a therapeutic regimen to patient with histopathological features of colorectal disease, e.g. colon cancer, comprising classifying the patient having a poor prognosis or a good prognosis on the basis of (M1), assigning the patient a therapeutic regimen, the therapeutic regiment comprising no adjuvant chemotherapy if the patient is lymph node negative and is classified as having a good prognosis or comprising chemotherapy if the patient has any other combination of lymph node status and expression profile. (M1) is useful for analyzing differential gene expression associated with histopathologic features of colorectal disease. (M1) is useful for analyzing differential gene expression associated with colon tumors, visceral metastases in colon cancer, lymph node metastases in colon cancer, MSI phenotype in colon cancer, location of primary colorectal carcinoma, in colon cancer, and survival and death of patient in colon cancer, where the analysis comprises detection of overexpression or underexpression of pool of polynucleotide sequences in colon tissue, the pool corresponding to specific combination of polynucleotide sequences from PS1, as given in the specification. (M1) is useful for detecting, diagnosing, staging, classifying, monitoring or predicting conditions associated with colorectal cancer. (M1) is useful for prognosis or diagnosis or colon cancer or for monitoring the treatment of a patient with colon cancer, which involves implementing (M1) on nucleic acids from the patient. (M1) is useful for differentiating a normal cell from a cancer cell, which involves implementing (M1) on nucleic acids from the cells. (M1) is useful for selecting appropriate doses and/or schedule of chemotherapeutics and/or (bio)pharmaceuticals and/or target agents e.g. Irinotecan, 5-fluorouracil and methotrexate. This sequence represents a polynucleotide identified in the analysis of differential gene expression associated with histopathological features of colorectal disease. Note: The sequence data for this patent is not represented in the printed specification but is based on sequence information supplied by the European Patent Office.

Revised record issued on 11-JUN-2007: Enhanced with precomputed information from BOND.

Sequence 3424 BP: 1134 A: 618 C: 709 G: 963 T: 0 U: 0 Other: SO

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Best Local Similarity
                    100.0%;
 Matches 558: Conservative
                        0: Mismatches
                                       0: Indels
                                                            0:
Qу
         1 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 60
           Db
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100.0%; Score 558; DB 4; Length 3424;

61 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120 Qy

Db 1627 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1686

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Qv
      Db
      181 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 240
Qv
         Db
      1747 GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT 1806
       241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300
Qу
          1807 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 1866
Db
      301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360
Qy
          1867 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1926
Db
      361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTTACTGAAGAAAGCATTG 420
Qv
         Db
      1927 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGAATTTTTACTGAAGAAGCATTG 1986
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0v
         Db
      1987 ACTAATCAAAGGATTGGGCACTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 2046
      481 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
Qy
          Db
      2047 ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2106
Qv
      541 TTGAAGCACCTGAATAGG 558
         Db
      2107 TTGAAGCACCTGAATAGG 2124
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AED31618
ID
   AED31618 standard; cDNA; 3424 BP.
XX
AC
   AED31618;
XX
DT
   15-DEC-2005 (first entry)
XX
   cDNA (SEO ID No:2) encoding human phosphatidylinositol 3-kinase (PIK3CA).
DE
XX
KW
   cancer; neoplasm; phosphatidylinositol 3-kinase; PIK3CA; tumor;
   chemotherapy; cytostatic; RNA interference; gene silencing;
KW
KW
   antisense therapy; gene; ss.
XX
OS
   Homo sapiens.
XX
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FΗ
     Key
                     Location/Qualifiers
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                     /*tag= a
FT
FT
                     /product= "PIK3CA"
XX
     WO2005091849-A2.
PN
XX
PD
     06-OCT-2005.
XX
PF
     18-FEB-2005; 2005WO-US005193.
XX
PR
     02-MAR-2004: 2004US-0548886P.
XX
PA
     (UYJO ) UNIV JOHNS HOPKINS.
XX
PΙ
     Samuels Y, Velculescu V, Kinzler KW, Vogelstein B;
XX
DR
     WPI: 2005-713721/73.
DR
     P-PSDB; AED31619.
XX
PТ
     Assessing cancer in a human suspected of having cancer, by determining a
PΤ
     non-synonymous, intragenic mutation in a phosphatidylinositol 3-kinase
PT
     (PIK3CA) coding sequence in the body sample from a human.
XX
PS
     Claim 1; SEO ID NO 2; 107pp; English.
XX
CC
     The invention relates to a method of assessing cancer in a body sample of
CC
     a human suspected of having cancer. The method comprises determining a
CC
     non-synonymous, intragenic mutation in a phosphatidylinositol 3-kinase
CC
     (PIK3CA) coding sequence in the body sample, and identifying the human as
CC
     likely to have cancer if a non-synonymous, intragenic mutation in PIK3CA
CC
     coding sequence is determined in the body sample. Also described are: (1)
CC
     a method of inhibiting progression of a tumor in a human; (2) a method of
CC
     identifying candidate chemotherapeutic agents; (3) a method for
CC
     delivering an appropriate chemotherapeutic drug to a patient in need; and
CC
     (4) a set of one or more primers for amplifying and/or sequencing PIK3CA,
CC
     the primers selected from forward primers, reverse primers, or sequencing
CC
     primers, where the forward primers are selected from sequences given as
CC
     SEQ ID NOs 6-165, the reverse primers are selected from sequences given
     as SEQ ID NOs 166-325, and the sequencing primers are selected sequences
CC
CC
     given as SEQ ID NOs 326-485 in the specification. The method of the
CC
     invention is useful for assessing cancer in a body sample of a human
CC
     suspected of having cancer, inhibiting progression of a tumor in a human,
CC
     identifying candidate chemotherapeutic agents, and delivering an
     appropriate chemotherapeutic drug to a patient in need. This sequence
     encodes human PIK3CA
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 $http://es/ScoreAccessWeb/GetItem.action? AppId=105913...-591-347-2_copy_1567_2124.rng\& ItemType=4\& startByte=0\ (33\ of\ 37)2/3/2011\ 2:01:13\ PM$

Sequence 3424 BP; 1134 A; 618 C; 709 G; 963 T; 0 U; 0 Other;

XX

SO

	100.0%; Score 558; DB 4; Length 3424; Similarity 100.0%; 8; Conservative 0; Mismatches 0; Indels 0; Gaps	0;
	o, concertable of machine of earth	~ /
Qy 1	A GAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT	60
Db 1567	AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT	1626
Qy 61	CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT	120
Db 1627	CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT	1686
Qy 121	GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTCTG	180
Db 1687	GTAACTATCCCCGAAATTCTACCCAAATTGCTTCTGTCTG	1746
Qy 181	GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT	240
Db 1747	GAAGTAGCCCAGATGTATTGCTTGGTAAAAGATTGGCCTCCAATCAAACCTGAACAGGCT	1806
Qy 241	ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC	300
Db 1807	ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC	1866
Qy 301	TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC	360
Db 1867	TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC	1926
Qy 361	CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG	420
Db 1927	CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG	1986
Qy 421	ACTAATCAAAGGATTGGGCACTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA	480
Db 1987	ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA	2046
Qy 481	ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT	540
Db 2047	ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT	2106
Qy 541	TTGAAGCACCTGAATAGG 558	
Db 2107		
RESULT 15		

RESULT 15 AEG93388

ID AEG93388 standard; cDNA; 3424 BP. XX

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SCORE Search Results Details for Application 10591347 and Search Result 20110118_143719_us-10-591-347-2_copy_1567_2124.rng.
AC
     AEG93388:
XX
     11-JUN-2007 (revised)
DT
     01-JUN-2006 (first entry)
DT
XX
DE
     Human tumor cell cDNA SEO ID NO:884.
XX
KW
     Gene expression; tumor; ss.
XX
OS
     Homo sapiens.
XX
PN
     WO2006036025-A1.
XX
PD
     06-APR-2006.
XX
PF
     30-SEP-2005; 2005WO-JP018574.
XX
PR
     30-SEP-2004: 2004JP-00286259.
PR
     28-FEB-2005; 2005JP-00054475.
     28-FEB-2005; 2005JP-00054866.
PR
XX
PΑ
     (EISA ) EISAI CO LTD.
XX
PΙ
     Owa T. Yokoi A. Ozawa Y. Kawai T. Ushijima R:
XX
DR
     WPI; 2006-293404/30.
DR
     PC:NCBI; qi472990.
     PC ENCPRO: NCBI: qi472991.
DR
XX
PТ
     Evaluating sensitivity of a tumor cell to a sulfonamide-containing
PΤ
     compound, comprises comparing the expression of specific genes in tumor
PΤ
     cells before and after administration of the compound.
XX
PS
     Claim 1; SEQ ID NO 884; 1405pp; Japanese.
XX
CC
     The invention relates to a method of evaluating the sensitivity of a
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The invention relates to a method of evaluating the sensitivity of a tumor cell to a sulfonamide-containing compound, by comparing the expression level of genes in tumor cells obtained from cancer patients before and after administration of the sulfonamide-containing compound and determining the tumor cell to be sensitive to the sulfonamide-containing compound, when the expression amount of genes in the cell is increased compared with the expression amount before administration and/or when the expression amount of one or more genes is decreased compared with the expression amount before administration. The invention also relates to an assay reagent of RNA comprising an oligonucleotide complementary to an RNA which is the transcription product of a gene, and an immunoassay reagent containing the antibody with respect to a protein which is a translation product of the gene. The expression level of the gene, which is the RNA transcription product, is measured using a DNA

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microarray or by quantitative PCR. The expression level of protein, which is a translation product of the gene, is measured by an immunochemical method such as enzyme linked immunosorbent assay (ELISA), concluded radioimmunoassay (RIA) or Western blotting. The method enables evaluation of the sensitivity of a tumor cell to a sulfonamide-containing compound. This sequence represents human tumor cell cDNA used in the scope of the invention.

Revised record issued on 11-JUN-2007: Enhanced with precomputed information from BOND.

XX SQ Sequence 3424 BP; 1134 A; 618 C; 709 G; 963 T; 0 U; 0 Other;

CC

CC

Db

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Db

Qv

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Qv

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Qу

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Qy

Db

100.0%; Score 558; DB 4; Length 3424; Ouerv Match Best Local Similarity 100.0%; Matches 558; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 1 AGAGACAATGAATTAAGGGAAAATGACAAGGAACAGCTCAAAGCAATTTCTACACGAGAT 60 Qv Db 1567 AGAGACAATGAATTAAGGGAAAATGACAAAGAACAGCTCAAAGCAATTTCTACACGAGAT 1626 61 CCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 120 Qv Db 1627 CCTCTCTCTGAAATCACTGAGCAGGAGAAAGATTTTCTATGGAGTCACAGACACTATTGT 1686 Qу

> 241 ATGGAACTTCTGGACTGTAATTACCCAGATCCTATGGTTCGAGGTTTTGCTGTTCGGTGC 300

301 TTGGAAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 360

1867 TTGGAAAATATTTAACAGATGACAAACTTTCTCAGTATTTAATTCAGCTAGTACAGGTC 1926
361 CTAAAATATGAACAATATTTGGATAACTTGCTTGTGAGATTTTTACTGAAGAAAGCATTG 420

421 ACTAATCAAAGGATTGGGCACTTTTTCTTTTGGCATTTAAAATCTGAGATGCACAATAAA 480

http://es/ScoreAccessWeb/GetItem.action?AppId=105913...-591-347-2_opy_1567_2124.rng&ItemType=4&startByte=0 (36 of 37)2/3/2011 2:01:13 PM

Qу	481	ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 540
Db	2047	ACAGTTAGCCAGAGGTTTGGCCTGCTTTTGGAGTCCTATTGTCGTGCATGTGGGATGTAT 2106

SCORE Search Results Details for Application 10591347 and Search Result 20110118_143719_us-10-591-347-2_copy_1567_2124.rng.

Search completed: January 19, 2011, 00:00:35 Job time : $1540 \ \text{secs}$